



eIDAS Compliant and CC-Certified Qualified Signature Creation Device (QSCD)

eIDAS compliant Signatures and Seals • eIDAS Server Signing • Key Protection • CC-certified • Simulator included

The CC eIDAS compliance version for CryptoServer General Purpose HSM supports Trust Service Providers (TSPs) in fulfilling policy and security requirements defined in various ETSI technical standards (ETSI EN 319 401, EN 319 411, EN 319 421).

Key use cases



CC eIDAS on CryptoServer General Purpose HSM is specifically designed for eIDAS-compliant qualified signatures and seals, remote signing and the issuing of qualified certificates.

Highlights

Qualified Signature / Seal Creation Device

eIDAS Server Signing

Strong hardware protection

Fulfills various compliance mandates

Software simulator included

Key Benefits

Qualified Signature/ Seal Creation Device (QSigCD & QSealCD)

CC eIDAS running on CryptoServer has received eIDAS certification as both a Qualified Signature and Qualified Seal Creation Device (QSCD) and can be used as a standalone QSCD or as a part of a combined QSCD with remote signing solutions.

Signature Activation Module (SAM) Ready for eIDAS Server Signing

By utilizing an add-on product - the CryptoServer SDK – for development of a Signature Activation Module (SAM), running inside the certified boundary of the HSM.

Strong Hardware Protection of Sensitive Assets

A secure root of trust to store sensitive assets such as private keys and data and optionally be managed as a “remote QSCD” by a qualified trust service provider (QTSP).

Fulfills Various Compliance Mandates

CC eIDAS on CryptoServer General Purpose HSM is Common Criteria EAL4+ certified according to Protection Profile EN 419 221-5 as well as to point 23 and 32 of Article 2 of Regulation 910/2014 (eIDAS). It also enables Server Signing acc. EN 419 241-2 and fulfills ETSI Policy and Security Requirements (e.g. EN 319 401, EN 319 411, EN 319 421, C-ITS).

HSM Simulator with all functionalities

Test before deployment: The fully functional simulator allows integration testing by offering a fully functional runtime including administration and configuration management.

HSM Management Features

- Extensive key management with key authorization
- Key authorization API and tool (acc. PP EN 419 221-5)
- "m out of n" quorum authentication (e.g. 3 out of 5)
- 2-factor authentication with smartcards
- Configurable role-based access control and separation of duties
- Multi-tenancy support
- Remote management and administration
- Supported operating systems: Windows and Linux
- Multiple integrations with PKI applications, etc.
- Efficient key management and firmware updates via remote access
- Automation of remote diagnosis via SNMP (Simple Network Management Protocol)

Cryptographic Algorithms

- RSA, ECDSA with NIST and Brainpool curves
- ECDH with NIST and Brainpool curves
- AES
- CMAC, HMAC
- SHA2-Family, SHA3
- Hash-based deterministic random number generator (DRG.4 acc. AIS 31)
- True random number generator (PTG.2 acc. AIS 31)
- Up to 3,000 RSA or 2,500 ECDSA signing operations in bulk processing mode
- All algorithms included in product price

Application Programming Interfaces (APIs)

- PKCS #11
- Cryptography Next Generation (CNG)
- Cryptographic eXtended services Interface (CXI)
– Utimaco's high performance interface ensures easy integration of cryptographic functionality into client applications

Hardware

Network Appliance



PCIe Card



Physical Dimensions

Form factor	19" 1U	Half-length, full-height single lane, PCI Express Card
Weight	22.05 lb (10 kg)	0.88 lb (0.4 kg)
Size	W 17.56 in x D 21.79 in x H 1.73 in (W 446 mm x D 533.4 mm x H 44 mm) excluding brackets	W 4.38 in x D 6.60 in x H 0.74 in (W 111.15 mm x D 167.65 mm x H 18.6 mm)

Connectivity

Interfaces	2 RJ45, 1 Gb/s	USB
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Electrical Characteristics

Power Supply / battery	Redundant field-replaceable, 2 x 100 ~ 240 V AC, 50 ~ 60 Hertz, 300 W	Backup battery: 3 V lithium battery, Ø 12 mm, length 60 mm, FDK CR 12600 SE or VARTA CR2NP
Power consumption / Operating voltage	Typically 45 W / 66 VA, max. 50 W / 70 VA	3.3 V
Heat	Heat dissipation: max. 171 BTU/h	

Operating Environment

Operating temperature	+50°F to +122°F (+10°C to +50°C)	+50°F to +113°F (+10°C to +45°C)
Operating relative humidity	10% to 95%, non-condensing	10% to 95%, non-condensing
Storage temperature	+14°F to +131°F (-10°C to +55°C)	+14°F to +131°F (-10°C to +55°C)
MTBF	100,000 hours at 25°C / 77°F, environment GB, GC – Ground Benign, Controlled	360,000 hours at 25°C / 77°F

Certification / Compliance

	IEC/EN 60950-1, IEC/EN 62368-1, UL, CB Certificate, CE, FCC Class B Environmental: RoHS III, WEEE Security: FIPS 140-2 Level 3
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